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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,025	01/28/2002	Hirofumi Ito	13888	2222

7590

07/05/2005

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EXAMINER

VO, TUNG T

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/056,025

Applicant(s)

ITO ET AL.

Examiner

Tung Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 12-16 and 25-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 04/05/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see the remarks, filed 04/08/2005, with respect to the rejection(s) of claim(s) 1-16 under 26-27 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Herrera (US 6,208,350 B1) and Mihara et al. (US 6,151,033).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-6, 12-16, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herrera (US 6,208,350).

Re claim 1, Herrera discloses an image apparatus which generates intermediate frames, B frames are intermediate frames, based on key frames (col. 14, lines 6-27, e.g. generating B frame, intermediate frame or bidirectional frame, using I frame(s) and P frame(s) which are considered as key or reference frames, MPEG standard, see also col. 2, lines 65-67) and corresponding point data (mapping textures, 110 of fig. 7) between the key frames (I frame and P frame of fig. 9), comprising

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a performance specifying unit (110 of fig. 7) which determines a processing performance of the apparatus; and

a resolution decision unit (114 of fig. 7) which determines resolution (raster operation) of the intermediate frames to be generated according to the processing performance determined by said performance specifying unit (col. 12, lines 43-46).

Re claim 2, Herrera further discloses generating intermediate frames by performing an interpolate computation (112 of fig. 7) on the key frames (I and P frames) at the determined resolution (106 of fig. 7).

Re claim 3, Herrera further discloses wherein the detecting the processing performance comprises determining if there is an optional graphic accelerator available for use by the apparatus (104 of fig. 6, set-up engine).

Re claim 4, Herrera further discloses the detecting the processing performance comprises determining a process of a PCU of the apparatus (PC 42 of figure 8 has sufficiently powerful enough (e.g., operating speed) to operate the process).

Re claim 5, Herrera further discloses said detecting the processing performance is carried out by the apparatus (frame rate, fps of accelerator 106 of fig. 7).

Re claim 6, Herrera further discloses wherein said detecting the processing performance comprises experimentally generating intermediate frames in the apparatus and determining the processing performance based thereon (B frame, 110 of fig. 7).

Re claims 12-16 and 25-27, see analysis in claims 1-6.

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Conclusion

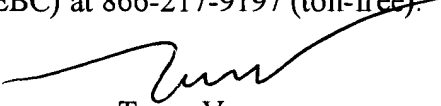
4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the previous Office Action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung Vo whose telephone number is 571-272-7340. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tung Vo
Primary Examiner
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